

REMARKS

Claims 1-18 are pending in the application. Claims 16-18 are allowed and claims 2-4, 6-8, 10-11 and 13-15 are found to contain allowable subject matter.

Claims 1, 5, 9 and 12 have been amended to clarify the claimed invention. Claims 1, 5 and 9 have been amended to clarify that duplicate frames are transmitted in the plurality of paths in parallel. This feature is supported in the specification, for example, page 11, lines 21-26. Claim 12 has been amended to clarify the environment where the frames are received from a plurality of paths and one of the frames is transmitted to the destination terminal. This feature is supported in the specification, for example, page 21, lines 2-8. No new matter is entered.

Claims 1 and 5 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Kilkki et al. (6,167,030) (hereafter Kilkki) in view of Krone, et al. (5,502,817) (hereafter Krone).

Kilkki describes that identification data which identifies real time/not real time service class (the rt/nrt service class) is inserted in an ATM header. This feature is pointed to as teaching applicant's claimed application discriminating unit.

The Office Action points to Krone as showing applicant's claimed frame transmitting unit for sending, in duplicate, the received frame to a plurality of paths in parallel in the direction of a destination if the application is a real-time application.

Krone disclose a high speed data collection processing and distribution system with segmented parallel data paths and a plurality of nodes connecting said parallel data paths in an endless ring. The Office Action points to col. 3 line 55 to col. 4 line 16 of Krone. However this section only describes the parallel data paths.

There is no description in the reference with regard to sending duplicate frames to a plurality of paths in parallel in the direction of a destination if the application is a real-time application. A review of the Krone disclosure did not find any mention of duplicate frames.

Therefore it is respectfully submitted that Krone do not disclose the features of the claimed invention of claims 1 and 5 and the combination of Kilkki and Krone fail to teach the features of the claimed invention and the rejection should be withdrawn.

Claim 9 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Saito in view of Krone.

As pointed out above Krone disclose segmented parallel data paths and a plurality of nodes connecting said parallel data paths in an endless ring. However Krone only describes the parallel data paths with no mention of duplicate frames. There is no description in the reference with regard to sending duplicate frames to a plurality of paths in parallel in the direction of a destination if the application is a real-time application.

Saito discloses a data communication system in which if the destination of frames F1 and F2 are identical, a sending router 10 creates a concatenation frame (multiplied frame) by concatenating frames F1 and F2 as shown in Fig. 9 and sends it to a destination router 20 by way of a single path as shown in Fig. 17. The destination router 20 divides the concatenation frame into frames F1 and F as shown in Fig. 10 and sends each frame to each of destination devices 90 and 95.

In addition, according to Saito, in a case where the amount of the data signal is large, the sending router 10 sends the data signal by way of plural paths as shown in Fig. 19. That is, frame F1 is transmitted by way of one path from the information processor 60 to the information

processor 90 and frame F2 is transmitted by way of another path from the information processor 65 to the information processor 95.

However there is no description of sending a received frame in duplicate to a plurality of paths in parallel in the direction of a destination if the addresses match.

Therefore it is respectfully submitted that the combination of Saito and Krone fail to teach or suggest the characteristic components of claim 9 that are:

an address-match discriminating unit for determining whether the destination address or transmission-source address contained in the header of the received frame matches on address that has already been registered; and

a frame transmitting unit for sending a received frame in duplicate to a plurality of paths in parallel in the direction of a destination if the addresses match.

From the foregoing, it is respectfully submitted the rejection should be withdrawn and claim 9 is allowable.

Claim 12 is rejected under 35 U.S.C. § 102(a) as being anticipated by Yeo (2002/70958). It is respectfully submitted Yeo fails to teach the features and environment of applicant's claimed invention. For example Yeo fails to teach: storing an identifier of the frame that has been transmitted to the destination terminal; and a redundant-frame filter for determining whether the frame identifier of a frame newly received from a path has been stored in said storage unit.

Yeo discloses in [0053] methods of identifying methods or well know methods of identifying very similar frames but fails to mention anything concerning frame identifiers and also determining whether the frame identifier of a frame newly received from a path has been stored in said storage unit.

In addition Yeo discloses an apparatus for dynamically generating a visual program summary in which redundant frames are removed from a frame store. GOP (Group of Picture) of MPEG compressed image data is composed of an intra-picture (I-frames) that contains full image definitions, four predictive pictures (P-frames) which are based upon other image frames and 10 bidirectional predictive-pictures (B-frames). Since it is possible to predict P-frames and B-frames using I-frames, a frame/video capture control module 330 captures only I-frames and stores them in the frame store 340, whereby a number of redundant frames stored in the frame store 340 is reduced.

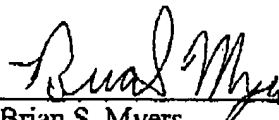
Yeo teaches storing a frame but does not mention storing a frame identifier.

As being apparent from the foregoing, Yeo does not disclose the features of applicant's claim 12. As a result, it is respectfully submitted claim 12 is allowable.

For at least the foregoing reasons it is respectfully submitted, claim 1, 5, 9, and 12 are allowable, thereby bringing this application in condition for allowance which action is respectfully requested. However, if for any reason the Examiner should consider this application not to be in condition for allowance, the Examiner is respectfully requested to telephone the undersigned attorney at the number listed below prior to issuing a further Action.

Any fee due with this paper may be charged to Deposit Account No. 50-1290.

Respectfully submitted,



Brian S. Myers
Reg. No. 46,947

CUSTOMER NUMBER 026304
Telephone: (212) 940-8703
Fax: (212) 940-8986/8987
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